CHRIS Study

Interview – Migraine

Version 1.1

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1. Introduction

This module stores information related to the migraine history of the participants, that was collected at the interview.

Participants book a morning appointment at the CHRIS study center, ranging from 7.45 to 8.45 a.m. Each study participant is assigned a workflow at the reception. If there are ten study participants (maximum capacity), there are ten different workflows, marked with the letters from "A" to "K". The current workflow is as follows: A-B-C-D-E-F-G-H-I-K. All the workflows can be found in the documentation of CHRIS Baseline/General information/Administrative data, in the file named "Workflows at baseline assessment". The interview occurs always after the spiralography and the blood drawing, for most as the last session, after the ECG assessment and the self-administered questionnaire (workflows B, C, E, F, H, I, L). For the remainder, the interview occurs after breakfast and just before the self-administered questionnaire (workflows A and G) or in between the blood drawing and the anthropometry (workflow D).

The interview full text and its corresponding answer lists are available at CHRIS Baseline/Interview. The first version of this module is based on an algorithm originally developed by Stefano Zanigni, a clinical neurologist at the IfB, whereas the second version is a refinement by epidemiologist Roberto Melotti and neurologist Marika Falla, based on practical experience at the study center.

Migraine is defined according to the International Headache Society's (HIS) classification of headache disorders (ICHD-II) and the WHO ICD-10 codes. For a definition of migraine, migraine with aura, migraine without aura, and other forms of primary headaches refer to the following publication of the International Classification of Headache Disorders 2nd Edition.

2. History version changes

Version 1 of this interview module was in use between August 24th,2011 and November 2nd, 2012; Version 2 was then in use since November 5th, 2012.

Version 1 to Version 2

variables dropped: x0mg02, x0mg03

variables added: x0mg02a

The cleaning process added the variables x0mg01a, x0mg23, x0mg23a, and x0mg23b.

3. Data cleaning

1. The main CHRIS dataset was loaded.
2. The variable on the occurrence of migraine attacks in the last 12 months, x0mg01, had it observations transformed into:
    a) "Unexpected missing" (-89) if they were missing,
    b) "Don't know" (-88) if the option "I do not know" was chosen.

3. The variable on the occurrence of migraine in the last 6 months, x0mg02, had its observations transformed into:
    a) "Not in use" (-98) if the questionnaire version was not the first (x0mgver>1),
    b) "Missing by design" (-99) if they were missing and migraine did not occur in the previous 12 months (x0mg01="No", "Don't know" or "Missing by design"),
    c) "Unexpected missing" (-89) if they were still missing,
    d) "Don't know" (-88) if the option "I do not know" was chosen.
4. The variable on the frequency of the migraine attacks, x0mg03, had its observations transformed into:
    a) "Not in use" (-98) if the questionnaire version was not the first (x0mgver>1),
    b) "Missing by design" (-99) if they were missing and migraine did not occur in the previous 12 months (x0mg01="No", "Don't know" or "Missing by design"),
    c) "Unexpected missing" (-89) if they were still missing.
5. The variable on migraine attacks frequency in the last 3 months, x0mg02a, had its observations transformed into:
    a) "Not in use" (-98) if the questionnaire version was the first (x0mgver=1),
    b) "Missing by design" (-99) if they were missing and migraine did not occur in the previous 12 months (x0mg01="No", "Don't know" or "Missing by design"),
    c) "Unexpected missing" (-89) if they were still missing,
6. The variable on migraine duration when untreated or unsuccessfully treated, x0mg04, had its observations transformed into:
    a) "Missing by design" (-99) if they were missing and migraine did not occur in the previous 12 months (x0mg01="No", "Don't know" or "Missing by design"),
    b) "Unexpected missing" (-89) if they were still missing,
    c) "Don't know" (-88) if the option "I do not know" was chosen.
7. All the remaining variables on migraine characteristics, x0mg05-x0mg22, had their observations transformed into:
    a) "Missing by design" (-99) if they were missing and migraine did not occur in the previous 12 months (x0mg01="No", "Don't know" or "Missing by design"),
    b) "Unexpected missing" (-89) if they were still missing.
8. A variable on the classification of the migraine as "migraine without aura" was created, using the following diagnostic criteria:
    A. At least 5 attacks fulfilling criteria B-D, i.e.
    B. Headache attacks lasting 4-72 hours (untreated or unsuccessfully treated),
    C. Headache has at least two of the following: unilateral location, pulsating quality, moderate or severe pain intensity, aggravation by or causing avoidance of routine physical activity (e.g., walking or climbing stairs)
    D. During headache at least one of the following: 1) nausea and/or vomiting, 2) photophobia and phonophobia,
    E. Not attributed to another disorder.

    Such variable was assigned the following values:

a) "Yes" if x0mg04="4h-72h" and sum((x0mg05="Yes"), (x0mg07="Yes"), (4≤x0mg22≤10), (x0mg10="Yes" or x0mg11="Yes"))≥2 and ((x0mg12="Yes" or x0mg13="Yes") or (x0mg14="Yes" and x0mg15="Yes"))

b) "Unexpected missing" (-89) if x0mg01=-89 or x0mg04=-89 or (x0mg05=-89 and x0mg07=-89 and x0mg22=-89 and x0mg10=-89 and x0mg11=-89) or (x0mg12=-89 and x0mg13=-89 and x0mg14=-89 and x0mg15=-89),

c) "No" otherwise.

The variable was saved as x0mg23.

9. A variable on the classification of the migraine as "migraine with aura" was created, using the diagnostic criteria:
   A.   Satisfy the diagnostic criteria for "migraine without aura",
   B.   Satisfy at least one of the following:
       1. flickering/interruption of the visual field
       2. weakness/paralysis/numbness/speech disturbance

   Such variable was assigned the following values:

   a) "Yes" if x0mg23="Yes" and (x0mg17="Yes" or x0mg19="Yes")
   b) "Unexpected missing" (-89) if x0mg23=-89 or x0mg17=-89 or x0mg19=-89,
   c) "No" otherwise.

   The variable was saved as x0mg24.

10. A new variable was created to characterize migraine without aura only, x0mg25, with values:
    a) "Yes" if only migraine without aura was reported (x0mg23="Yes" and xmg24="No"),
    b) "Unexpected Missing" (-89) if either criteria for migraine with aura or migraine without aura are missing (x0mg23=-89 or x0mg24=-89),
    c) "No" otherwise.

11. The variable on fulfilment of the diagnostic criteria of "migraine without aura", x0mg23, was changed into "Migraine with aura" if migraine type fulfilled also the diagnostic criteria of "migraine with aura" (x0mg24="Yes"). Hence, the variable x0mg23 was labelled as "Migraine type".

12. The variables storing the notes additional information on neurological symptoms, x0mgn1, x0mgn2, x0mgn3, and x0mgnote, were translated and categorized when possible.

13. The baseline dataset was saved.

4. Advices for the analysis

The content of the nurse's notes includes information on migraine frequency, as well as concurrent symptoms, circumstances of headaches occurrence, and episodes of migraine before the last 12 months. Information on other neurological diseases and on Parkinson's disease were instead collected with the interview modules Neurology and Parkinson, respectively (x0ne and x0pk modules).

The current medications can be looked at in the drugs module x0dd, where the participant let their current medication packages be scanned by the nurse at the study center.

Finally, the analyst should always take into account that the operator in charge of carrying out the interview might have influenced how the participant reported their answers. The analyst should therefore adjust for the operator variable, x0_opintc, when possible.

5. References

International Classification of Headache Disorders 2nd Edition ICHD-II Classification: Parts 1–3: Primary, Secondary and Other *Cephalalgia* May 2004 24(1 suppl): s23-136